Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte OSCAR C. STROHACKER

Appeal No. 1998-3362
Application No. 08/516,773

ON BRIEF

Before FLEMING, RUGGIERO, and LEVY, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-4, 6, 15-18, and 20, which are the only claims remaining in the application. Claims 5, 7-14, 19, and 21 have been canceled. An amendment filed July 23, 1997 after final rejection was entered by the Examiner.

The claimed invention relates to a method and system for preprocessing multiple bit per pixel sampled data in which data stored in a frame buffer is transposed from a pixel based format to a bit plane based format before compression. Appellant asserts at page 4 of the specification that, by regrouping the sampled video data from pixel referenced bits and strings to bit plane bits and strings, the compressibility of the data is improved. This improvement in data compressibility resulting from the regrouping of data is further asserted by Appellant to stem from the segregation of the more significant bits from the least significant bits, thereby efficiently utilizing the bit significance represented by the frame buffer bit planes.

Claim 1 is illustrative of the invention and reads as follows:

1. A system suited to the compression of video data, comprising:

a frame buffer means with multiple bit planes for storing digital format video data composed of multiple data bits per pixel;

means for serially reading the video data from a selected bit plane of the frame buffer means;

means for forming the serially read video data into groups;

means for transmitting formed groups in ordered succession;

means for compressing the video data as represented in the ordered succession of groups; and

means for transmitting tokens representing the ordered succession of groups in compressed form.

The Examiner relies on the following prior art:

Hattori	5,170,368	Dec. 08, 1992
Katayama et al. (Katayama)	5,361,147	Nov. 01, 1994
Strohacker	5,526,472	Jun. 11, 1996
	(filed Oct. 07, 1994)	

Claims 1-4, 6, 15-18, and 20 stand finally rejected under 35 U.S.C. § 103. As evidence of obviousness, the Examiner offers Katayama alone with respect to claims 1, 2, 15, and 16, and adds Hattori to Katayama with respect to claims 3, 4, 6, 17, 18, and 20. In a separate 35 U.S.C. § 103 rejection, claims 3, 4, 6, 17, 18, and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Katayama in view of Strohacker.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Brief (Paper No. 12) and Answer (Paper No. 13) for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the Brief along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-4, 6, 15-18, and 20. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837

F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v.

Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to the obviousness rejection of both of the appealed independent claims 1 and 15 based on Katayama, Appellants assert the Examiner's failure to establish a prima facie case of obviousness since all of the claim limitations are not taught or suggested by the applied Katayama reference. In particular, Appellant contends (Brief, page 6) that Katayama has no disclosure of the serial reading of video data from a selected bit plane of a frame buffer, as well as lacking any disclosure of the formation of the serially read data into groups.

After reviewing the disclosure of the Katayama reference in light of the arguments of record, we are in agreement with Appellant's position as stated in the Brief. In making the

rejection, the Examiner makes reference to the disclosure at column 6, lines 6-15 of Katayama which describes the frame-sequential read out of Y, U, and V component data (which the Examiner has likened to bit planes) as supporting the conclusion that serial read out is taking place. In our view, however, this cited portion of the Katayama disclosure describes only the read out of data from frame to frame in sequential frame order, and not in what manner the data bits are read from each of the Y, U, and V frames. Although the Examiner suggests (Answer, page 10) that most image compression systems are serial in nature, such assertion is devoid of any supporting evidence on the record. We are not inclined to dispense with proof by evidence when the proposition at issue is not supported by a teaching in a prior art reference, common knowledge or capable of unquestionable demonstration. Precedence of our reviewing court requires this evidence in order to establish a prima facie case. In re Knapp-Monarch Co., 296 F.2d 230, 232, 132 USPQ 6, 8 (CCPA 1961); In re Cofer, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA 1966).

It is further our view, that even assuming, arguendo, the correctness of the Examiner's assertion that serial read out from the frame memories is taking place in Katayama, such fact alone does not address the issue of obviousness with respect to the specific limitations of the appealed independent claims 1 and 15. Each of claims 1 and 15, besides a recitation of the serial read out of video data from frame buffers, requires the formation of the serially read data into groups as well as the transmitting of the formed groups in ordered succession. While the Examiner has asserted that the sub sampling unit 6 and orthogonal conversion unit 8 in Katayama perform these functions, we find no description in Katayama that would support the Examiner's conclusion that grouping and transmission in ordered succession is taking place. In order for us to sustain the Examiner's rejection under 35 U.S.C. § 103, we would need to resort to speculation or unfounded assumptions or rationales to supply deficiencies in the factual basis of the rejection before us.

In re Wagner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968), rehearing denied, 390 U.S. 1000 (1968). Accordingly, since the Examiner has not

established a prima facie case of obviousness, the rejection of independent claims 1 and 15, and claims 2 and 16 dependent thereon, over Katayama is not sustained.

Turning to a consideration of the Examiner's 35 U.S.C. § 103 rejection of dependent claims 3, 4, 6, 17, 18, and 20 in which the Strohacker and Hattori references are alternatively added to Katayama, we do not sustain this rejection as well. It is apparent from the Examiner's analysis (Answer, pages 5 and 7) that Strohacker and Hattori are relied on solely to address the claimed use of shift registers in data compression systems. We find nothing, however, in the disclosures of Strohacker and Hattori which would overcome the innate deficiencies of Katayama discussed supra.

In conclusion, since the Examiner has not established a prima facie case of obviousness, the 35 U.S.C. § 103 rejection of independent claims 1 and 15 and claims 2-4, 6, 16-18, and 20 dependent thereon, cannot be sustained. Therefore, the decision of the Examiner rejecting claims 1-4, 6, 15-18, and 20 is reversed.

REVERSED

MICHAEL R. FLEMING Administrative Patent Judge	)
JOSEPH F. RUGGIERO Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
STUART S. LEVY Administrative Patent Judge	)

lp

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APJ RUGGIERO

APJ LEVY

APJ FLEMING

DECISION: REVERSED
Send Reference(s): Yes No
or Translation (s)
Panel Change: Yes No
Index Sheet-2901 Rejection(s):

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